

SUMMARY: EPISODE-BASED PAYMENT

Definition: Episode-based payments reimburse providers on the basis of expected costs for clinically-defined episodes of care. Episodes of care are typically defined on the basis of selected conditions or major procedures, and include clinically related services provided by various providers over a period of time. Episode-based payments may also be adjusted for severity of illness and quality performance.

Intended Effects: The primary goals of episode-based payments are to contain the cost of services delivered during clinical episodes of care, while also encouraging delivery of recommended, high quality services and coordination of care across providers involved in care over the course of an episode.

Incentives for Providers: Episode-based payments include financial incentives to encourage providers to deliver quality care efficiently and in coordination with other providers involved in shared episodes of patient care.

Potential Problems: Current approaches address only a fraction of all patient care, and there are a number of design and operational issues needing consideration, including varying definitions of episodes, methods for calculating and distributing per-episode payments, and data infrastructure needs.

Experience with Implementation: Episode-based payment approaches are in an early stage of development. The use of fully-operational episode-based payment systems is limited. Industry standards for design approaches are not well-established.

Evidence: Evidence of the effects of episode-based payment approaches on cost and quality is scant, though there are examples of episode-based programs having positive influences on structure and process quality measures as well as being associated with decreased costs of care.

Episode-Based Payment

1. What is it?

Episode-based payments are an emerging payment approach that reimburses providers on the basis of clinically defined episodes of care, rather than on fee-for-service basis or per-patient per-month basis as under capitation arrangements. (Christianson 2008; Gosfield 2008; Rosenthal 2008). Under the emerging approaches, episodes of care for various conditions include a range of services provided by various providers and in various provider settings, built around a particular condition or procedure, over a period of time. The payments may be adjusted for severity of illness and/or the extent to which evidence-based services are provided, clinical outcomes are achieved, or services are efficiently delivered.

Payment arrangements may use varying definitions for what constitutes a distinct episode of care. Typically, computer software programs are developed that can identify and create episodes of care from claims and administrative data. Then, expected costs are calculated from the claims data for particular types of episodes, or are based on expected costs of best practices in caring for episodes, in order to develop episode “case rates” (Gosfield 2007; Thomas 2006). Each episode may also be analyzed to assess whether care provided during the episode met evidence-based standards and/or whether desired clinical outcomes were achieved. The base “case rate” may then be adjusted (reduced or increased) based on performance on evidence-based standards. Algorithms may then be used to attribute episodes to a particular provider (or group of providers) deemed most responsible for the care of a patient during distinct episodes, for purposes of making payments to attributed providers.

Emerging episode-based payment models have some relationship to existing bundled payment approaches focused on specific settings of care. For example, inpatient hospital diagnostic-related groups (DRGs) bundle services within a single setting during a hospital stay for the purposes of prospective payment. The Medicare hospital outpatient prospective payment system also provides limited bundling of services provided during outpatient visits. All involve bundling services around a clinical condition or service event. However, these systems focus on care provided in single settings and are thus distinct from the emerging models which attempt to capture the full range of services delivered by all or most providers during particular clinical episodes.

2. Intended effects

The primary goals of episode-based payments are to contain the cost of services delivered during clinical episodes of care, while also encouraging delivery of recommended, high quality services and coordination of care across providers involved in care over the course of an episode. Outcomes include reducing unnecessary physician and ancillary services, compensating physicians for efficient and effective resource use, and reducing complications and readmissions (Mechanic and Altman 2009; MedPAC 2008).

3. Incentives for providers

Episode-based payment approaches encourage providers to deliver quality care efficiently and in coordination with other providers involved in shared episodes of patient care. The financial incentives of episode-based approaches ideally mitigate varying adverse effects of incentives presented by traditional capitation or fee-for-service payment approaches. Episode-based payment

approaches differ from some capitation arrangements, as providers are not placed at risk for the development of episodes or for the number of episodes that occur. Moreover, unlike capitation payments, episode payments are more sensitive to the case mix of patients treated by individual providers or groups, since separate case rates are developed for different conditions—which protects providers from adverse risk selection to some degree, and may reduce the stronger incentives for “cherry picking” under traditional capitation.¹ While incentives found in episode-based approaches may not be as strong as those in more comprehensive risk-sharing approaches such as global capitation, fixed payment rates for episodes of care may also provide inducements for providers to actively share responsibility for patient care and coordinate care more effectively.

Unlike fee-for-service payments, cost containment incentives of episode-based payments are provided through risk sharing based on fixed episode-based case rates covering the expected cost of all services during an episode. Ideally, episode-based payments place providers at risk for clinical performance in treating given episodes, while not placing them at “insurance” risk—that is, risk for prevalence or onset of disease for their patients.² Incentives for quality may be provided through adjustments to those case rates based on delivery of evidence-based services or outcomes achieved.

4. Potential problems or drawbacks

There are a number of design and operational issues to be considered in developing episode-based payment approaches. For example:

- There are critical decisions regarding the definition of episodes, such as the clinical criteria to be applied, the scope of services to be included (e.g. physician, hospital, drugs), the definition of time periods for various episodes, and the treatment of concurrent episodes for the same patient.
- It is often technically difficult to attribute episodes to individual providers or groups of providers. Similarly, distributing payments to multiple providers involved in the same episodes of care presents administrative difficulties.
- Even within well-defined episode types, severity of illness (and thus costs of treatment) may still vary significantly—often for reasons not within a provider’s control. Risk adjustment methods, beyond episode classification, may be necessary to avoid adverse selection or cherry picking.
- The number of conditions and episodes for which episodes or case rates can be defined is currently small. Some episode-based payment models begin by analyzing only one episode type (Paulus, Davis, and Steele 2008). It is uncertain what portion of patient care could be

¹ Some payment approaches also incorporate risk-adjustment methods to ensure providers aren’t unfairly penalized for treating sicker and more complex patients, though it is unclear which methods are effective (Thomas 2006) and whether providers will find such methods valid.

² However arguments can be made for holding especially primary care physicians responsible for prevention of certain conditions, for example, within medical home payment models.

ultimately addressed in episode-based payments, but it is unlikely that all patient care can be categorized into meaningful episode types for payment purposes.

- Successful implementation of episode-based models will likely require additional investments in infrastructure, especially in multi-payer settings (e.g., claims and enrollment data, EMRs or other data).

5. Experience with implementation

Episode of care payments are in an early stage of development. Industry standards for design approaches are not well established, and the use of fully operational episode-based payment approaches appears to be quite limited. A number of private insurers/payers have been using episode grouping software to establish network tiers and to supply providers with performance feedback reports, with peer comparisons often included in such reports (Rattray 2008). The extent of actual use of episode-based payment among private insurers/payers is unclear. The Centers for Medicaid and Medicare Services (CMS) has limited experience with episode-based payment models, though it is soon implementing a demonstration that includes global payments for episodes of care (discussed below).

The Geisinger health system, which serves northeastern and central Pennsylvania, developed an episode-based payment model known as the ProvenCare system. This approach establishes an episode payment rate for patients having elective coronary artery bypass graft (CABG) surgery (Paulus, Davis, and Steele 2008). The model consists of three core components: establishing implementable best practices (i.e., processes of care); developing risk-based pricing, including an upfront discount to the health plan or payer (in this case, the Geisinger Health Plan); and establishing a mechanism for patient engagement (educational materials are distributed to patients and a “patient compact” is signed by both the patient and Geisinger). Episode payment rates cover preoperative evaluation and work up, all hospital and professional fees, all routine post acute care, and management of complications within 90 days of surgery. Geisinger expanded the ProvenCare program to the conditions of hip replacement, cataract surgery, and percutaneous coronary intervention, and expansions to bariatric surgery, lower back surgery, and perinatal care are underway (Paulus, Davis, and Steele 2008).

This year CMS is implementing the Medicare Acute Care Episode (ACE) payment demonstration, focusing global payments for episodes of care related to cardiac and orthopedic inpatient procedures (CMS 2008). There are 28 cardiac and 9 orthopedic inpatient surgical services and procedures related to 6 procedures (e.g., hip or knee replacement and CABG) included in the bundled payment demonstration, and a bundled payment is a single payment for both Part A and Part B Medicare services furnished during an inpatient stay. CMS will track participating providers’ performance on process and outcome quality measures. The demonstration allows gainsharing, which are provider incentive programs that allow physicians and hospitals to share remuneration for implementing and coordinating improvements in efficiency and quality. Such incentives are meant to encourage various providers to better coordinate patient care, ideally resulting in more efficient and higher quality care. The ACE demonstration will also provide an opportunity for Medicare to share savings achieved through the demonstration with beneficiaries who, based on quality and cost, choose to receive care from participating demonstration providers.

In 1991 CMS implemented the Medicare Heart Bypass Center Demonstration, which by 1993 included seven hospitals, and began paying a single global rate for each coronary artery bypass graft

(CABG) surgery through the second quarter of 1996 (Cromwell et al. 1998). The rate included all inpatient hospital and physician services, and related readmissions were also included in the negotiated global rate. (Results from evaluation of this demonstration are discussed below in more detail.)

In addition, a new episode of care payment design approach, named PROMETHEUS, was recently developed, in collaboration with the Massachusetts Quality Improvement Organization, MassPRO, and focuses on payment for clinical episodes associated with diabetes, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), heart attack, coronary artery disease (CAD), and orthopedic procedures such as knee and hip replacement. (PROMETHEUS, Inc. 2008.)³

The PROMETHEUS model includes construction of global fees, called Evidence-informed Case Rates (ECRs), for episodes of care relating to acute and chronic conditions and inpatient and outpatient procedures (de Brantes and Camillus 2007; for more details, also visit <http://www.prometheuspayers.org/index.html>). Currently, the ECRs are used to make supplemental payments to providers who meet quality measures while providing care for less than ECRs established for corresponding episodes of care. ECRs have been developed for: diabetes, CHF, COPD, CAD, and hypertension (chronic conditions); heart attack and CABG (acute conditions); and hip and knee replacements and bariatric surgery (inpatient procedural episodes) (PROMETHEUS Online Newsletter 2008).

The PROMETHEUS payment model is being implemented in three sites in 2009. In Rockford, Illinois, the Employers Coalition on Health is leading the implementation of PROMETHEUS Payment by working directly with local providers. Two health plans in Minnesota, Medica and HealthPartners, will be leading implementation of the PROMETHEUS model in several pilot sites. In Philadelphia, the Crozer-Keystone Health System is working with a local orthopedic surgery network to implement PROMETHEUS ECRs for hip and knee replacements (PROMETHEUS Online Newsletter 2008).

6. Evidence

Evidence of the effects of episode-based payment approaches on cost and quality is scant, though there are a few indications that such efforts may have positive influences. A study of the Medicare Participating Heart Bypass Center Demonstration demonstrated cost savings to both the Medicare program and beneficiaries (Cromwell et al. 1998). Three of the seven demonstration hospitals experienced statistically significant declines of 10-40% in direct intensive care unit and routine nursing expenses, while two hospitals had significant declines of roughly 30% in pharmacy costs per case. Improved patient outcomes were also demonstrated. The study found a statistically significant, negative trend in inpatient mortality rate among demonstration hospitals (though prior to the study the seven demonstration hospitals also had a much lower overall inpatient mortality rate compared with Medicare national rates, so these results may not be applicable to all hospitals).

A study conducted by the Geisinger health system have shown positive trends relative to effects on cost and quality of care provided to patients under its episode-based payment program,

³ PROMETHEUS Payment, Inc. is an organization funded by the Robert Wood Johnson Foundation.

ProvenCare (Paulus, Davis, and Steele 2008; Casale et al. 2007). The percentage of CABG patients receiving all recommended processes of care increased from 59% of patients at the start of the ProvenCare program to 100% of CABG patients by the end of the evaluation. Further, patients showed improved trends in clinical outcomes following CABG, although only estimated effects on the likelihood of discharge to home (rather than being discharged to a post-acute care setting, for example) reached statistical significance. Other promising trends were demonstrated, as length of stay for CABG patients decreased by 16% and mean hospital charges fell 5.2% (Casale et al. 2007).

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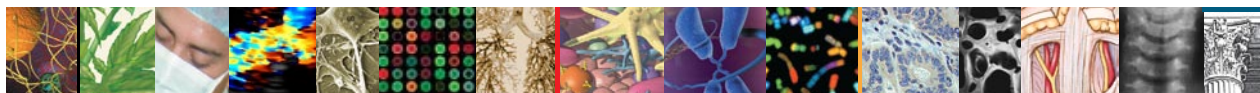
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Beyond Pay for Performance — Emerging Models of Provider-Payment Reform

Meredith B. Rosenthal, Ph.D.

Escalating costs and the growing imbalance between primary and specialty care have increased the urgency of calls for fundamental reform of the health care payment system. At the

core of the problem is the fact that the dominant fee-for-service model rewards volume and intensity rather than value. But although the faults in the way we currently pay for health care are obvious, it is much less clear what feasible approach would yield better results.

Earlier this decade, pay for performance took center stage as a tactic for realigning payment with value. Payers' experiences during this period, as well as several major studies, clarified the limitations of this approach — characterized by some as putting lipstick on a pig. Both the enthusiastic adoption and somewhat lackluster early results of pay for performance have given rise to a

broader payment-reform movement, with proposals and pilots emerging from a wide variety of stakeholders and policy leaders (see table).

The contours of proposed reforms of the health care payment system follow the fault lines of current reimbursement models — either undoing perverse incentives in existing payment approaches or augmenting the incentives for providing high-value care. A number of incremental payment-reform models that have gained traction over the past several years address individual issues; more ambitious reform proposals attempt to correct multiple shortcomings.

Among the incrementalist approaches embraced by many pay-

ers is enhancement of existing pay-for-performance programs through changes in scope, performance measures, and magnitude of funding. The changes appear to be focused on two perceived shortcomings of earlier efforts: too little impact on provider behavior and not enough focus on demonstrable benefit — including both health outcomes and spending — as opposed to process-of-care measures. At the same time, nonpayment for treatment of preventable complications has emerged as the mirror image of pay for performance. Early adopters of this approach, including HealthPartners in Minnesota, refuse to pay for “never events” (rare and preventable errors or complications); the Centers for Medicare and Medicaid Services (CMS) has cast a somewhat broader net, aided in part by new “present-on-admission” diagnostic codes.

Emerging Models of Payment Reform.*		
Source or Model	Description	Stage of Development
Incremental reforms: nonpayment for avoidable complications		
HealthPartners, CMS	Nonpayment for “never events” (e.g., surgery performed on the wrong body part, HealthPartners) and other preventable inpatient complications (e.g., catheter-associated urinary tract infections, CMS)	Implemented by HealthPartners Jan. 1, 2005, and by CMS Oct. 1, 2008
Primary care payment reform		
American Academy of Family Physicians, American College of Physicians, American Osteopathic Association, American Academy of Pediatrics	Tiered case-management fees (in addition to fee for service) paid per member per month to practices that demonstrate structural characteristics of a medical home, such as maintenance of disease registries and patient-education capabilities; performance incentives typically included	Pilots under development or in place include individual health plans, Medicare, Medicaid, and involved coalitions; specific examples include Group Health Incorporated and the Health Insurance Plan of New York as well as the Chronic Care Sustainability Initiative (multipayer initiative in Rhode Island that includes Medicaid)
Comprehensive Primary Care Payment and the Massachusetts Coalition for Primary Care Reform†	Primary care capitation with performance incentives; per-member, per-month payment rate based on accounting for costs of medical home, including, for instance, a \$250,000 salary for the primary care physician; the salaries of a part-time nutritionist, part-time social worker, nurse, nurse practitioner, and medical assistant; office expenses; and the costs of setting up electronic health records and employing a data manager	Pilot under development
Episode-based payment		
Prometheus	Episode-based payment model that defines global case rates for given conditions (e.g., acute myocardial infarction, diabetes, and knee replacement); payment amounts informed by cost of adhering to clinical standards of care; risk stratification and complication allowance; performance incentives based on comprehensive score card	Pilot under development
Geisinger Health System, ProvenCare	Episode-based payment for elective coronary-artery bypass grafting; 90-day global fee paired with high-reliability process improvements to achieve 40 best-practice standards	In use; expanding to other conditions and types of acute episodes
Shared savings		
Medicare Physician Group Practice Demonstration	Large, integrated groups may earn bonuses for demonstrating slower growth in spending for patient care relative to peers; any savings above 2 percentage points are shared with CMS, with up to 80% for the physician group; quality of performance affects share of savings (no quality bonus without savings)	Began in 2005; intended to last 3 years
Alabama Medicaid	Primary care physicians are eligible to share in savings according to their performance on use of generics, emergency department visits, office visits, and an index of actual-versus-expected total of allowed charges	Launched in 2004; payments began in 2007

* CMS denotes Centers for Medicare and Medicaid Services.

† See Goroll et al.¹

The downward spiral of the primary care profession in terms of compensation, professional satisfaction, and numbers of new entrants to the field has sparked

a payment-reform movement specifically focused on primary care. Prominent among these efforts has been a set of proposals wrapped around the notion of a “medical

home” (sometimes called the “patient-centered” or “advanced” medical home). The medical home is a set of philosophical and structural elements designed to ensure

that a physician practice (usually in primary care) takes responsibility for providing and coordinating timely and appropriate care for its patients.² The medical-home payment model typically includes a case-management fee, tiered according to the extent and sophistication of office systems and other practice capabilities attained, and pay for performance to support the delivery of optimal preventive and chronic-disease care.

An alternative vision for primary care payment that acknowledges the functions encapsulated in the medical-home concept goes further by replacing fee-for-service payment with primary care capitation.¹ This “comprehensive” payment model advocates payments computed (over a typical patient-panel size) to cover salaries for a multidisciplinary clinical team, infrastructure costs (e.g., the cost of implementing electronic health records), and other practice expenses that are deemed necessary for building a functioning medical home. Although primary care physicians would not pay for downstream costs such as referrals, the model includes substantial performance incentives for quality and cost efficiency (amounting to 15 to 25% of total payments).

Outside the primary care arena, some groups are turning to episode-based payment systems such as Prometheus Payment, developed by a panel of experts and stakeholders. Global case-payment rates for a given condition are developed on the basis of clinical standards for appropriate care rather than solely through examination of current patterns of care, which reflect high rates of underuse, misuse, and overuse. Calculation of payments includes risk

adjustment and a warranty for care in the event of related complications. Performance incentives (equal to 10 to 20% of the case-payment rate) related to clinical quality, patient experience, and cost efficiency are also part of the model.

Geisinger Health System’s ProvenCare payment concept is also based on clinical quality standards as applied to a defined episode of treatment.³ For elective coronary-artery bypass surgery, for example, the ProvenCare payment includes preoperative care, all services associated with the surgery and inpatient stay, plus 90 days of follow-up care. The episode price set by the health system is based on the cost of routine services plus an amount equal to half the average cost of complications.

Meanwhile, the Medicare Physician Group Practice Demonstration program is a leading example of the shared savings model of payment reform, which resembles the soft capitation contracts of the 1990s. In this program, participating group practices agree to manage the care of a population of Medicare patients with the prospect of sharing in savings that accrue to Medicare. Savings are calculated as the difference between actual spending and the risk-adjusted spending trend in a given market. Once this difference surpasses 2 percentage points, savings are shared with the integrated physician groups involved, which can receive up to 80% of these savings by performing well on cost-efficiency and quality measures.

Similarly, in late 2004, the State of Alabama instituted a program whereby 50% of any documented savings associated with primary care physicians in

the state’s primary care case-management program is shared with those physicians. Shared savings are allocated according to a point system that takes into account physicians’ scores on three risk-adjusted measures of performance (use of generic medications, emergency department use, and number of office visits) and an index of their actual-versus-expected total of allowed charges.

Although these approaches to payment reform span a wide range of models, a number of common themes emerge. The first is value-based payment: although cost control is a major goal of most reforms, clinical guidelines and quality measures play important supporting roles. For example, both the episode-based and comprehensive primary care payment models require payment levels to cover the costs of explicitly defined “best practices.”

The second theme reflects a lesson from earlier iterations of capitation-payment systems: the need to distinguish random variation in outcomes and patient mix from variation in practices and avoidable complications. The new CMS hospital payment rule is the most obvious example of an attempt to make such distinctions, but both the episode-based payment models and shared-savings approaches involve this type of accounting.

Finally, many of the payment approaches are inseparable from specific care delivery and organizational models. The medical homes are the most explicit examples of this trend, but it is also noteworthy that Medicare’s shared-savings model was piloted only in large, integrated health care systems. Policy developments in new models of accountability

share this view that aligning provider incentives with payer goals will require organizational forms that can coordinate care more effectively than the fragmented current system.⁴

There are, fundamentally, no “new” methods of health care payment. Novel approaches such as those described here are new combinations of old ideas, with updated features such as improved risk adjustment. Economic theory, as others have long noted, suggests that such mixed payment models will function better than any single approach.⁵ Which recipe will yield the best balance of meaningful incentives for cost control and quality improvement, risk protection for providers, and

selection incentives remains to be seen. The prospects for payment reform, however, hinge more on politics than on economics. Given that the two major goals of reform are to constrain spending growth and to move money from more intensive to less intensive settings — from doctors who carry endoscopes and scalpels to primary care physicians, for example — there will be substantial resistance to even the best-designed plans.

Dr. Rosenthal reports having an unpaid role in the design and testing of the Prometheus Payment system. No other potential conflict of interest relevant to this article was reported.

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No Place Like Home — Testing a New Model of Care Delivery

John K. Iglehart

Seeking ways to slow the growth of Medicare spending and to better coordinate the health care it finances, the federal government is preparing to test the concept of the “medical home” in the Medicare program. In response to a mandate in the Tax Relief and Health Care Act of 2006, the staff at the Centers for Medicare and Medicaid Services (CMS) is developing a demonstration program that will operate for 3 years in rural, urban, and underserved areas in up to eight states. Congress has directed the agency to use the program to “redesign the health care delivery system to provide targeted, accessible, continuous and coordinated, family-centered care to high-need populations.” Reluctant to constrain the freedom of bene-

ficiaries currently covered under the traditional fee-for-service model, however, Congress placed no limits on patients’ freedom to seek treatment, without a referral, from physicians not affiliated with their medical home and made virtually all practices eligible to participate in the demonstration program.

There is no consensus definition of the term “patient-centered medical home,” a concept that was introduced by the American Academy of Pediatrics (AAP) in 1967 with the aim of improving health care for children with special needs. Over the years, the AAP, the World Health Organization, the Institute of Medicine, the American Academy of Family Physicians (AAFP), Dr. Edward Wagner (director of the W.A.

MacColl Institute for Healthcare Innovation at the Center for Health Studies in Seattle), and others have honed this model, expanding its scope and placing more emphasis on adults with chronic conditions. In 2007, the AAFP, the AAP, the American College of Physicians, and the American Osteopathic Association issued principles defining their vision of a patient-centered medical home.¹ The core features include a physician-directed medical practice; a personal doctor for every patient; the capacity to coordinate high-quality, accessible care; and payments that recognize a medical home’s added value for patients. With the possible exception of some multispecialty group practices, this model remains largely an aspiration — a type of care

CHAPTER 4

A path to bundled payment around a hospitalization

R E C O M M E N D A T I O N S

- 4A** The Congress should require the Secretary to confidentially report readmission rates and resource use around hospitalization episodes to hospitals and physicians. Beginning in the third year, providers' relative resource use should be publicly disclosed.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

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- 4B** To encourage providers to collaborate and better coordinate care, the Congress should direct the Secretary to reduce payments to hospitals with relatively high readmission rates for select conditions and also allow shared accountability between physicians and hospitals. The Congress should also direct the Secretary to report within two years on the feasibility of broader approaches, such as virtual bundling, for encouraging efficiency around hospitalization episodes.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

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- 4C** The Congress should require the Secretary to create a voluntary pilot program to test the feasibility of actual bundled payment for services around hospitalization episodes for select conditions. The pilot must have clear and explicit thresholds for determining whether it can be expanded into the full Medicare program or should be discontinued.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

A path to bundled payment around a hospitalization

Chapter summary

The fee-for-service payment system fails to encourage providers to cooperate with one another to improve coordination of beneficiaries' care and appropriately control the volume and cost of services delivered across an episode of care. This chapter explores changes in fee-for-service payment for care provided around a hospitalization to address these failures. It finds that bundling Medicare payment to cover all services associated with an episode of care has the potential to improve incentives for providers to deliver the right mix of services at the right time. The benefits of such a change in Medicare payment would likely not accrue to Medicare and its beneficiaries alone; given that Medicare is the single largest purchaser of health care, its payment reforms often influence other purchasers and insurers and spill over to other patients.

Under bundled payment, Medicare would pay a single provider entity (composed of a hospital and its affiliated physicians) an amount intended to cover the costs of providing the full range of care needed over a hospitalization episode. Although this approach holds great potential, the Commission recognizes the complexity associated with

In this chapter

- The rationale for bundling payment
- An incremental approach to bundled payment
- Conclusion

bundling payment. Accordingly, the Commission offers an incremental approach, composed of three related policies.

First, the Commission recommends that the Secretary confidentially disclose to hospitals and physicians information about their service use around hospitalization episodes. This information would allow a given hospital and the physicians who practice in it to compare their risk-adjusted performance relative to other hospitals and physicians. In turn, they may consider ways to adjust their practice styles and coordinate care to reduce their service use. After two years of confidential disclosure to providers, the same information should be publicly available.

Recommendation 4A

COMMISSIONER VOTES:
YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

The Congress should require the Secretary to confidentially report readmission rates and resource use around hospitalization episodes to hospitals and physicians. Beginning in the third year, providers' relative resource use should be publicly disclosed.

Because information disclosure alone is likely not sufficient to fully motivate and sustain change, the Commission also recommends changing payment to hold providers financially accountable for service use around a hospitalization episode. Specifically, it recommends that Medicare reduce payment to hospitals with relatively high risk-adjusted readmission rates for select conditions. The Commission recommends that this payment change be made in tandem with a previously recommended change in law to allow hospitals and physicians to share in the savings that result from reengineering inefficient care processes during the episode of care.

Recommendation 4B

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

To encourage providers to collaborate and better coordinate care, the Congress should direct the Secretary to reduce payments to hospitals with relatively high readmission rates for select conditions and also allow shared accountability between physicians and hospitals. The Congress should also direct the Secretary to report within two years on the feasibility of broader approaches, such as virtual bundling, for encouraging efficiency around hospitalization episodes.

Recognizing that readmissions account for only part of the variation in practice patterns around an admission, the Commission also recommends that the Secretary explore broader payment changes to encourage efficiency around hospitalization episodes for providers not accepting a bundled payment. Medicare should conduct a voluntary pilot program to test bundled payment for an episode of care extending past discharge for select conditions. Bundled payment raises a wide set of implementation issues. It requires that Medicare create a new payment rate for a bundle of services and that providers organize to deliver care efficiently and determine how they will share the payment. A pilot program allows CMS to identify and resolve the attendant design and implementation issues and gives providers who are ready the chance to start receiving the bundled payment. If the pilot succeeds in improving coordination of care and reducing costs, bundled payment for hospitalization episodes of care should become the dominant Medicare payment method for these services.

The Congress should require the Secretary to create a voluntary pilot program to test the feasibility of actual bundled payment for services around hospitalization episodes for select conditions. The pilot must have clear and explicit thresholds for determining whether it can be expanded into the full Medicare program or should be discontinued.

Recommendation 4C

COMMISSIONER VOTES:

YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

The Commission is under no illusion that the path of policy change outlined here will be easy. Implementation will undoubtedly require more administrative resources for CMS. And, despite our best efforts to anticipate them, unforeseen consequences are likely to be encountered and policies will need to be adjusted. Nevertheless, the Commission believes the status quo is unacceptable. The current payment system is fueling many of the troublesome aspects of our health care system: Beneficiaries' care is often uncoordinated and health care costs are increasing to an extent that strains many beneficiaries' ability to pay their health care bills, the nation's ability to finance Medicare, and the ability of a large segment of the non-Medicare population to afford health insurance. ■

The fee-for-service (FFS) payment system fails to encourage providers to cooperate with one another to improve coordination of beneficiaries' care and appropriately control the volume and cost of services delivered across an episode of care. This chapter explores changes in FFS payment for care provided around a hospitalization to address these failures. The Commission finds that bundling Medicare payment to cover all services associated with an episode of care has the potential to improve incentives for providers to deliver the right mix of services at the right time.

Under bundled payment, Medicare would pay a single provider entity (composed of a hospital and its affiliated physicians) an amount intended to cover the costs of providing the full range of care needed over a hospitalization episode. Providers would not only be motivated to contain their own costs but also would have a financial incentive to partner with efficient providers or collaborate with current partners to improve their collective performance. Providers involved in an episode could develop ways to allocate payments among themselves. This flexibility should give providers a greater incentive to work together and be mindful of the impact their service use has on the overall quality of care, the volume of services provided, and the cost of providing each service.

With such significant change in incentives for an industry as complex as health care comes the possibility of unintended consequences and design challenges. The lack of “systemness” in health care suggests that hospitals and physicians may find it difficult to agree on how to effectively manage care and share the bundled payment (Berenson et al. 2006, Budetti et al. 2002). This chapter recommends incremental steps toward bundling payment over episodes of care around a hospitalization.

A first step is for Medicare to confidentially inform hospitals and physicians about their patterns of resource use around certain hospitalization episodes, including readmission rates. After two years, the information should also be disclosed to the public. If information is made public, providers may take it more seriously and beneficiaries may use it to inform their health care decisions.

Program-wide payment changes are also needed. The Commission recommends that payments be reduced for hospitals with high readmission rates for select high-volume, high-cost conditions. This change should

encourage hospitals to dedicate resources to processes that can reduce readmission rates. Because the Commission recognizes that hospitals will need physician cooperation to reduce avoidable readmissions, it recommends that the Congress revise existing restrictions to allow hospitals to financially reward physicians for their focus in addressing this problem.

Concurrent with information dissemination and a change in readmissions payment policy, CMS should conduct a pilot program to test bundled payment. Bundling payment raises a range of implementation issues because under bundled payment the entity accepting the payment—rather than Medicare—has discretion in the amount it pays providers for care provided, whether to pay for services not now covered by Medicare, and how it rewards providers for reducing costs and improving quality. The advantage of this flexibility is that providers can decide the best way to structure service delivery and payment to achieve efficient, quality care. But these changes could also lead to some unintended consequences. A pilot program will allow CMS to consider policies to reduce the likelihood of unintended consequences and determine how Medicare can best share in the savings. It also gives entities that are ready the chance to start receiving the bundled payment. If the pilot succeeds in improving coordination of care and reducing costs, bundled payment for episodes of care should become the Medicare FFS payment method for these services.

This chapter first explores the problems with current FFS payment, how bundling payment across providers around a hospitalization episode can change their behavior and why focusing our attention on the window of time around an admission is so important. The second part of the chapter outlines the specific incremental steps the Commission believes will help realign financial incentives so that they reward providers for delivering the appropriate volume of services, coordinating beneficiaries' care, and improving efficiency across an episode of care.

The rationale for bundling payment

Ideally, payment systems should financially motivate hospitals and physicians to collaborate in identifying and implementing opportunities to limit the use of low-value services, coordinate beneficiaries' care, and work together to improve efficiency, particularly across an episode of

care. Bundling payment across an episode of care may be the best way to achieve these objectives in the context of a FFS system.

FFS rewards more care rather than the right mix

In FFS, Medicare generally pays a prospective amount for services delivered by each provider based on the expected costs of providing that service. For most providers, the unit of service is relatively narrow and encompasses only the services a provider furnishes. For example, most physicians are paid per visit, skilled nursing facilities are paid per day, and hospitals' outpatient departments and ambulatory surgical centers are paid per procedure and per test.

In some instances, Medicare bundles payment across services provided by a single provider type. For example, under the inpatient prospective payment system, hospitals are paid a single amount based on the patient's diagnosis to cover all hospital costs associated with the stay. (Physician services provided to beneficiaries during the stay are billed and paid separately under the physician fee schedule, even if the physician is employed by the hospital.) Surgeons are also paid a bundled fee called the global surgical fee. It covers the cost of all the surgeon's services around the surgery. The intent of these approaches is to break the link between payment and volume of services and, in so doing, induce greater efficiency. While these payment innovations may have improved providers' efficiency (e.g., shorter length of stay) during the episode of care, they pertain only to a single provider (e.g., the hospital) and therefore have a limited effect in reducing the aggregate volume of services paid for by Medicare.

FFS payment rewards volume because it pays for each service separately without regard to the mix or volume of services used in caring for patients. For example, Medicare pays hospitals the same for readmissions (some of which could be avoided) as for initial admissions. Similarly, Medicare pays most physicians for each service, without attention to the appropriateness of the mix of physician services. Because Medicare's payments do not promote coordination of and quality of care, more admissions (including readmissions) increase income for hospitals and more visits, procedures, and tests provide more income for most physicians.

Another confounding dynamic in FFS payment policy is that it often pays more generously for high-tech services than for low-tech services. Providers are, in turn, more inclined to deliver these high-tech, high-margin services,

even if lower cost alternatives could achieve the same or better outcomes for patients. An account of the efforts of Seattle's Virginia Mason Medical Center (VMMC) to change its mix of services for certain conditions illustrates the financial trade-offs associated with providing more efficient care under FFS. In treating cardiac arrhythmias, VMMC realized that physicians often ordered more expensive stress tests using nuclear imaging scans instead of less expensive, less profitable, but equally effective, stress echocardiograms. By encouraging providers to use the less costly service, VMMC could reduce costs for a commercial insurer from \$2,300 to \$695 per episode, but this action would decrease its margin from \$785 to \$305. Similarly, because VMMC found that emergency department visits for insured patients are profitable (a margin of \$180), it had little incentive to invest in reducing the number of them (Ginsburg et al. 2007). Hospitals for which readmissions are profitable have no financial motive to avert them (as discussed later).

In addition, legal restrictions often prevent hospitals from financially rewarding physicians for reducing hospital costs associated with Medicare patients.¹ Physicians clearly affect hospitals' costs in their treatment decisions (e.g., use of the intensive care unit (ICU)), the volume and mix of supplies they use (e.g., type of implantable device), and their decisions about when to discharge a patient. If they have some ability to share in the savings they can produce for hospitals, physicians might be more cost conscious.

The potential for improved efficiency is evidenced by the finding that areas with lower costs have comparatively good quality care. In fact, areas with higher Medicare spending tend to score substantially worse on a composite indicator of quality of care provided to Medicare beneficiaries (CBO 2008). A study on state-level spending variation found that, if spending per Medicare beneficiary increased by \$1,000 in a state, there was an associated decrease in most measures of good medical practices, such as the share of heart attack patients who were given aspirin (Baiker and Chandra 2004). This research does not mean that any reduction in spending improves quality, however. The specific mix of services and the quality of those services matter.

The experience of industry leaders suggests a roadmap for improvement during hospitalization episodes. Motivated hospitals have found that—by working with physicians to revamp and standardize the care process—mortality

rates, complication rates, readmission rates, and costs have declined. For example:

- By having physicians and nurses complete a checklist of safety measures (e.g., whether the bed is propped up at the right angle, and whether ventilated patients are given antacids) during patients' ICU stays, Michigan hospitals reduced their infection rates by 66 percent within the first three months of the project. These declines have been sustained, saving about \$75 million and 1,500 lives after 18 months of the initiative (Gawande 2007).
- Catholic Healthcare Partners created a program to improve care for its heart failure patients by promoting the consistent use of evidence-based guidelines. Aggregate all-cause heart failure readmissions within 30 days decreased from 22 percent in 2002 to consistently below 20 percent between 2004 and 2006. Performance on a composite of four Hospital Compare heart failure measures improved from 72 percent in 2003 to 95 percent in 2006. In addition, inpatient mortality for all patients with heart failure admitted over the same period declined 40 percent (Hostetter 2008).
- Intermountain Health System found that if, when discharging cardiovascular patients, physicians and nurses referred to a checklist of indications and contraindications for five medications known to prevent complications and save lives, appropriate use of the medications increased dramatically (Lappe et al. 2004).

Financial incentives in FFS are needed to motivate more providers to emulate these successes and increase efficiency.

Bundling payment around a hospitalization can change incentives

Paying a bundled fee for care provided during a hospitalization and immediately afterward means that instead of Medicare making a separate diagnosis related group (DRG) payment to the hospital and separate payment to the physician, skilled nursing facility, and outpatient department, Medicare would make one payment to a provider entity, which would allocate the funds among the providers delivering care during the covered episode. A bundled payment would create the possibility for the provider entity (likely organized around hospitals and physicians) to reward both desirable and undesirable behavior. However, the Commission believes that, through careful policy design, the risk for undesirable behavior can

be minimized. CMS has had some experience addressing these types of issues in the course of demonstration programs and in aspects of the current FFS and Medicare Advantage programs.

Desirable responses

Providers would have the incentive to reduce unnecessary physician services during the hospitalization. Research suggests that there is an opportunity to reduce the number of inpatient physician visits without affecting the quality of care. Dartmouth researchers found that inpatient visits and inpatient specialist consultations were more than two times higher in the highest spending regions than in the lowest spending regions, with no discernible difference in the quality of care that patients received (Fisher et al. 2003a, Fisher et al. 2003b).

Second, hospitals could compensate physicians for using fewer resources during an inpatient stay. Accordingly, the hospitals' costs could be reduced, whether through shorter lengths of stay, less waiting time between surgeries in the operating room, less use of the ICU, or more judicious use of hospital supplies. For example, some cardiologists at the PinnacleHealth System hospital group in Pennsylvania who previously inflated an artery-opening balloon each time they inserted a stent into a patient's clogged arteries, agreed to try to use a single balloon throughout a procedure. That step, which the doctors say poses no additional risk to patients, saves at least a couple of hundred dollars per procedure (Abelson 2005).

In a third desired response—given a bundled payment covering a hospitalization and care provided for a specified time after discharge (e.g., 30 days)—providers would be encouraged to evaluate ways to reduce postdischarge costs such as readmissions and unnecessary post-acute care. Physicians have referred to time after discharge as “white space,” reflecting the fact that providers are inconsistent in their attention to what happens to the patient at that point. Under this policy, for example, they should be motivated to increase the likelihood that patients recently discharged from the hospital have an office visit with their physician to avoid readmission. Providers should also evaluate the need for post-acute care and the best source for it.

Savings from preventing readmissions can be considerable. About 18 percent of Medicare hospital admissions result in readmissions within 30 days of discharge, accounting for \$15 billion in spending. The Commission found that Medicare spends about \$12 billion on potentially preventable readmissions, as defined by

one vendor's clinically based software (MedPAC 2007).² Obviously, the definition of potentially preventable involves some degree of clinical judgment and some of these cases may not be preventable.

The few studies that have been done of bundled payments suggest these desirable responses are attainable. One private sector pilot project looked at the impact of creating a medical episode-of-care payment for either knee or shoulder arthroscopic surgery that included a two-year warranty from the surgeon. As a result, total episodic costs were lower, the surgeon's and the hospital's margins had improved, and the number of "redos" and complications had decreased (Johnson and Becker 1994).

The Medicare Participating Heart Bypass Center demonstration of the 1990s found that bundled payment could increase providers' efficiency and reduce Medicare's costs. Most of the participating sites found that, under a bundled payment, hospitals and physicians reduced laboratory, pharmacy, and ICU spending. Spending on consulting physicians also decreased, as did spending for postdischarge care. Quality remained high (Cromwell et al. 1998). (See text box for a more detailed discussion.)

More recently, in 2006, the Geisinger Health System created a program that pays for coronary artery bypass graft surgery with a bundled payment covering all care for 30 days before and 90 days after an intervention, including related complications, readmissions, and follow-up care. The provider-driven pay-for-performance process that accompanied the change in payment method has been found to result in an increase in provider compliance with best practices and to positively influence 30-day clinical outcomes. Both length of stay and 30-day readmission rates declined. Incentive payments were available for physicians who adhered to best practices, but physicians were not at financial risk for the cost of complications in the 90-day postoperative window (Casale et al. 2007).

Undesirable responses

Providers could react to the incentives of a bundled payment in less desirable ways. In deciding how to share the bundled payment, the provider entity could choose to reward physicians who initiate more admissions, particularly those that are relatively generously reimbursed. This reaction would reinforce a culture that values volume growth. For example, providers may find that increasing the number of admissions creates a win-win situation for both hospitals and physicians under bundled payment. A higher volume could reduce the unit

cost of each service by spreading fixed costs over a higher number of inpatient stays, thereby improving the margin on the bundle. This higher margin would leave a bigger pie for hospitals and physicians to share. Accordingly, physicians may be more inclined to admit a patient who could be treated on either an inpatient or an outpatient basis.³

A second concern is that, because there are disparities in the financial performance among hospitals, some hospitals will be more able to pay physicians higher rates than others. So, as they compete to attract physicians, some hospitals could be forced to redirect money needed for patient care (e.g., nursing) to physicians in order to offer attractive compensation arrangements.

Third, aligning economic incentives allows for the possibility that providers would seek to profit by furnishing inappropriately low levels of service (or "stinting"), which would compromise the quality of patient care. Similarly, providers could respond by "unbundling"—for example, by delaying some physician visits (e.g., a psychiatric consult) beyond the period that the bundled payment covered (e.g., the hospital stay). This type of stinting would increase Medicare spending, as Medicare would in essence pay twice for a service—once in its bundled payment amount and again when it is delivered outside the bundled period.

Fourth, to the extent that risk adjustment is imperfect and physicians find that payments for certain patients (e.g., frail, senile, nonadherent patients) are inadequate, physicians may avoid these patients. Also, physicians who care for these "low-margin" beneficiaries could find that hospitals are reluctant to grant them admitting privileges. This potential problem could be tempered by an outlier policy similar to the one in place for hospitals. Under this approach, providers would not be fully responsible for the costs of exceptionally high-cost patients.

A fifth possible response could be a change in how hospitals code patients' severity level for inpatient care. Currently, hospitals rely on physicians' notes on diagnoses in the medical record to determine how to code the severity of an admission. Because physicians' payment does not depend on their coding, they have no incentive to overstate the severity. Similarly, they have no incentive to be thorough, particularly in recording comorbidities, which can enable hospitals to bill for the level of payment that reflects the true severity of the patient. Under a bundled payment, however, physicians would have the

Medicare's experience with bundled payments under the cardiac bypass graft demonstration

Under a demonstration that ran from 1991 to 1996, Medicare paid a bundled rate for hospital and physician services around hospitalizations for cardiac bypass graft surgery. In this demonstration, the participating sites received a bundled rate for care surrounding admission for two diagnosis related groups.

Evaluation of the demonstration found that it generated considerable interest among providers, reduced the costs to Medicare and to most participants, and increased the quality of care. Given a bundled or global payment, each site under the demonstration created a pool of funds from which consulting physicians (e.g., pulmonologists, nephrologists, internists, and neurologists) were paid their regular Medicare allowable fees. Funds left over from the pool at the end of the year were awarded to the four specialists involved in bypass surgery who had control over the number of consulting physician services. Deficits from the pool were offset by lower payment amounts in the next period. In addition, two sites allowed physicians to share in hospital cost savings, creating further incentives to lower costs. One site awarded

physicians one-quarter of any hospital cost savings that they personally generated, in addition to the originally negotiated payment. Another site awarded surgeons more operating room time and converted their nurse specialists and physician assistants in surgery into hospital employees because of the positive changes in surgeons' practice patterns (Cromwell et al. 1998).

Some sites also gained efficiencies by decreasing staff and introducing clinical nurse specialists to oversee each bypass patient's stay. This new position helped smooth transitions from service to service. Sites also substituted several less expensive or generic drugs for more costly ones; two hospitals saved \$100,000 per year by doing this.

The demonstration was opposed by providers, who raised concerns about a government program designating some providers as higher quality than others and paying differently. These concerns contributed to the demise of a planned follow-up demonstration (Berenson and Harris 2002). ■

incentive to cooperate with hospitals on coding. To the extent this cooperation results in more accurate coding, rather than overstatements of severity, it may be desirable. However, it can increase Medicare spending. To offset this potential increase, CMS can make adjustments, just as it did when it anticipated coding behavior changes coinciding with DRG changes.

Why focus payment changes around a hospitalization episode?

There are several reasons to focus on changing payment incentives on hospitalization and postdischarge care. First, patients who have been hospitalized are more likely to receive care in different settings with different physicians supervising their care. This is particularly the case today, given the increasing prevalence of hospitalists, who care for patients only in an inpatient setting, leaving patients to obtain care from other physicians at discharge. Under

these circumstances, joint accountability is particularly important.

Second, changing incentives around a hospitalization episode presents an opportunity to improve care delivery and reduce fragmentation at a time when patients are at greatest risk. Discharge from the hospital, in particular, is a critical and vulnerable care juncture for Medicare beneficiaries. Patients often experience the transition to home or post-acute care settings abruptly. Discharges may occur on weekends and involve clinicians who may not have an ongoing relationship with the patient, who may suddenly be expected to assume a self-management role in recovery with little support and preparation (Coleman and Berenson 2004). Patients and families may not realize how vulnerable patients are, particularly if the patient has not returned to his or her baseline physical or cognitive functional state in the interval between discharge and follow-up. Further, patients may not know which

provider to call with questions during that interval, as it is not always clear which provider is responsible for and informed about the patient's care (HMO Workgroup 2004).

Discharge is also a time when patients are more likely to be receptive to health care recommendations. The chances of long-term adherence to medication regimens are significantly higher when medications are provided at hospital discharge, and this difference is associated with decreased mortality rates (Lappe et al. 2004). Interventions at discharge may also be effective given the hospital-based resources and availability of the patient for consultation. Experts have noted that hospital-based interventions, such as improving discharge medications, could be more easily implemented, more effectively managed and measured, and more cost effective than other outpatient intervention strategies (Lappe et al. 2004).

Third, these beneficiaries tend to be among the most costly for Medicare. The most costly beneficiaries (i.e., in the top 20 percent) have an average of 1.7 admissions per year (CBO 2005). In the search for ways to target care coordination to those most in need, focusing providers' attention on these beneficiaries may be a highly cost-effective way to improve care coordination.

Fourth, focusing on the postdischarge period creates the opportunity to address some of the wide variation in spending across geographic areas and providers. For example, Medicare 30-day readmission rates range from 14 percent in the lowest decile of states to 22 percent in the highest decile (Commonwealth Fund 2006). The Commission's analysis also finds wide variation in service use during the postdischarge period (Table 4-1). For example, for patients with chronic obstructive pulmonary disease (COPD), hospitals with the most costly episodes for COPD patients spend about 65 percent more on readmissions than hospitals with average spending. These high-spending hospitals also pay about 78 percent more for post-acute care than hospitals with average spending. Because this analysis looks at Medicare spending only, it does not reflect differences in providers' costs or the potential for savings if variation in hospitals' costs were reduced. The Commission believes savings can be gained from inefficient hospitals reducing their costs; under a bundled payment approach, Medicare should share in those savings.

Fifth, focusing on care around a hospitalization engages the two most influential provider types (hospitals and physicians) in finding more efficient ways to deliver care,

thereby fostering "systemness." Collectively engaging hospitals and physicians, rather than focusing on physicians and their "power of the pen" alone, has value. Hospitals have the managerial resources to restructure care, can play the role of convener to facilitate buy-in to best practices, and are geographically dispersed. Given these capabilities and their role in the marketplace, hospitals are positioned to promote change if incentives also apply to them.

An incremental approach to bundled payment

While the rationale for bundling payment is compelling, the previous section points to some of the thorny implementation issues. Because these issues are not easily resolved, the Commission concludes that an incremental approach is necessary to improve incentives without inviting large-scale unintended consequences. It should have three components: information disclosure, a change in payment for readmissions coupled with shared accountability, and a pilot program to test bundled payment.

These changes should apply to select conditions, at least initially, and should be pursued in conjunction with a separate pay-for-performance quality program, as the Commission has recommended in the past (MedPAC 2005a). Starting with select conditions is important, because providers can focus their efforts, increasing the likelihood that they will achieve early success. The lessons learned in caring for the selected conditions can then be applied to payment changes for other conditions. Conditions such as congestive heart failure and COPD appear to hold particular promise, given the success of pioneering providers in reducing costs (Naylor et al. 1999).

Implementing this incremental approach would require CMS to undertake a variety of new functions (e.g., measure and report resource use, adjust hospital payment for readmission rates, conduct a pilot program that may involve establishing facility-specific payment rates) and resolve a wide range of implementation issues (e.g., risk adjustment, outlier policies, selecting the conditions to be subject to the payment changes). Given the complexity and breadth of these demands on CMS, the Congress may wish to consider making a special appropriation to CMS,

**TABLE
4-1****Average risk-adjusted spending for selected conditions during and 30 days after a hospital stay**

Type of condition and service	Low-resource-use hospitals	Average	High-resource-use hospitals	High-resource-use hospital difference from average	
				Percent	Dollars
COPD					
Total episode	\$6,372	\$7,871	\$9,748	23.8%	\$1,877
Hospital	4,408	4,414	4,406	-0.2	-8
Physician	547	569	576	1.2	7
Readmission	671	1,543	2,550	65.3	1,007
Post-acute care	466	998	1,780	78.3	782
Other	280	347	436	25.6	89
CHF					
Total episode	\$7,757	\$9,278	\$11,019	18.8	\$1,741
Hospital	4,837	4,826	4,824	0.0	-2
Physician	612	647	650	0.5	3
Readmission	1,102	1,986	2,965	49.3	979
Post-acute care	842	1,378	2,041	48.1	663
Other	363	441	539	22.1	98
CABG with cardiac catheterization					
Total episode	\$31,534	\$33,421	\$35,656	6.7	\$2,235
Hospital	25,591	25,474	25,390	-0.3	-84
Physician	3,390	3,452	3,404	-1.4	-48
Readmission	947	1,887	2,911	54.3	1,024
Post-acute care	800	1,651	2,822	70.9	1,171
Other	806	957	1,129	18.0	172

Note: COPD (chronic obstructive pulmonary disease), CHF (congestive heart failure), CABG (coronary artery bypass graft). Spending for each service is risk adjusted to reflect differences in patient severity and reflects national standardized payment rates for Medicare, which exclude spending associated with specific missions (e.g., teaching) and geographic payment adjustments for differences in input prices. Spending does not reflect differences in the cost to the facility of providing services. Low-resource-use hospitals are in the bottom quartile of risk-adjusted episode spending and high-resource-use hospitals are in the top quartile of risk-adjusted episode spending (case weighted). Physician spending reflects physician care provided during the hospital stay. Readmission spending includes average spending for hospital care and physician care for the readmission. Other reflects outpatient care and physician care outside the hospital.

Source: MedPAC analysis of 5 percent sample of 2001–2003 Medicare claims files.

much as it did when it passed the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Reporting resource use to providers

CMS should first confidentially report provider resource use around select hospitalization episodes to hospitals and physicians. This feedback should be detailed so that providers can understand how their practice patterns differ from those of their peers and assess the opportunity for change. After two years the annual feedback should be available to the public.

Using resource use measurement results for provider education would give CMS experience using the measurement tool and allow the agency to explore the need for refinements. Providers could review the results and make changes to their practice as they deem appropriate and also help shape the measurement tool.

Providing feedback on resource use patterns to physicians alone has been shown to have a statistically significant, but small, downward effect on resource use (Balas et al. 1996, Schoenbaum and Murray 1992). Medicare's feedback on resource use could be more effective in reducing use than

previous experience in the private sector. As Medicare is the single largest purchaser of health care, its reports should command greater attention. In addition, because Medicare's reports would be based on more patients than private plan reports, they should have more statistical validity and acceptance from physicians. Nevertheless, disclosing their performance patterns to physicians alone is not likely to sufficiently motivate and sustain the magnitude of behavior change needed.

Publicly disclosing information on groups or individual providers can have a larger impact on changing behavior. For example, in New York, four years after information on hospital and physician risk-adjusted mortality rates became public, deaths from cardiac surgery fell 41 percent. However, patients did not appear to use the information to choose higher scoring providers (Chassin 2002). In one instance, releasing information to patients did influence their behavior. PacifiCare found that by releasing information on the quality of physician groups at the time of open enrollment, 30,000 enrollees chose the higher quality physician groups (MedPAC 2003).

RECOMMENDATION 4A

The Congress should require the Secretary to confidentially report readmission rates and resource use around hospitalization episodes to hospitals and physicians. Beginning in the third year, providers' relative resource use should be publicly disclosed.

RATIONALE 4A

Many providers may not be aware of the resources they use around a hospitalization. Once equipped with this information, they may consider ways to adjust their practice styles and coordinate care to reduce their resource use.

IMPLICATIONS 4A

Spending

- There are some administrative costs.
- Small savings could result from reduced utilization, but they are indeterminate.

Beneficiary and provider

- Beneficiaries would receive better coordination of care to the extent providers respond to this information by better managing care around a hospitalization.
- Because providers may respond by reducing the number of certain types of services, the growth in aggregate payments to some providers may slow over time.

Financial accountability for service use around hospitalization episodes: A focus on readmission rates

A program-wide change in financial incentives is needed to encourage providers to be aware of the collective impact of the actions of all the providers involved in care for a patient and to take greater responsibility for the coordination of care.

Reduce payment for high readmission rates

Currently, Medicare pays for all admissions based on the patient's diagnosis regardless of whether it is an initial stay or a readmission for the same or a related condition. As such, it does not reward hospital-based initiatives that can successfully avert many readmissions.

Many readmissions can be avoided by improving certain aspects of care. For example, by furnishing better, safer care during the hospital stay, providers can avoid complications that necessitate readmissions. Attending to patients' medication needs at discharge also makes a difference. Medication errors after discharge are not uncommon and contribute to readmissions. Improving communication with patients before and after discharge also reduces the need for readmission. Patients are often not adequately informed about self-care. Similarly, improving communication with other providers is important. Too often discharge summaries are not complete and are not available at the time of the first postdischarge physician visit (see MedPAC's June 2007 report to the Congress for a fuller discussion of this literature).

Spending on readmissions is considerable and accounts for much of the variation in spending for hospitalization episodes (Table 4-1, p. 93). Within 30 days of discharge, 17.6 percent of admissions are readmitted, accounting for \$15 billion in Medicare spending in 2005. Not all these readmissions are avoidable, but some are.

A focus on readmissions can be viewed as a natural extension of the motivation behind recent Medicare payment changes that prohibit Medicare payment for "never events" and for the additional costs associated with patients acquiring preventable complications during a hospitalization. Never events are defined as "serious reportable" events by the National Quality Forum and include things such as leaving unintended objects in the patient as well as death or serious disability from falls, medication errors, and administration of incompatible blood during hospitalization. These payment changes

**TABLE
4-2****Potentially preventable 30-day readmission rates and spending for selected conditions**

Initial condition	Type of hospital admission	Number of potentially preventable 30-day readmissions (in thousands)	Percent readmitted within 30 days*	Average Medicare payment for readmissions	Total spending on potentially preventable readmissions (in millions)
Heart failure	Medical	139.2	19.1%	\$6,490	\$903
COPD	Medical	85.1	16.5	6,491	552
Pneumonia	Medical	86.4	13.3	6,681	577
AMI	Medical	30.5	18.7	6,540	199
CABG	Surgical	26.6	18.1	8,085	215
PTCA	Surgical	68.2	14.7	8,342	569
Other vascular	Surgical	30.0	18.6	10,061	302
Total for seven conditions		465.9			\$3,318
Total for all DRGs		1,715.5			\$12,008
Percent of total		27.2%			27.6%

Note: COPD (chronic obstructive pulmonary disease), AMI (acute myocardial infarction), CABG (coronary artery bypass graft), PTCA (percutaneous transluminal coronary angioplasty), DRG (diagnosis related group). Analysis is for readmissions within 30 days of discharge from the initial stay. Potentially preventable readmissions are identified using 3M software. Potentially preventable readmissions are readmissions that might be avoided with effective inpatient care, proper discharge planning, and follow-up care. Many potentially preventable readmissions will occur even under the best postdischarge care as a result of general disease progression. Potentially preventable readmissions, therefore, should not be viewed in isolation but should be used as a tool to compare hospitals with some normative standard of expected performance given a hospital's mix of patient conditions and patient severity.

*30-day readmission rates are calculated based on the set of cases that are potentially eligible for an initial readmission, thus they exclude readmissions and people that died in the hospital from the denominator.

Source: 3M analysis of 2005 Medicare discharge claims data.

reflect the sentiment that Medicare should not reward providers for delivering services that could have been avoided through the provision of better care.

The change in payment would mean that hospitals with high risk-adjusted rates of readmissions receive lower average per case payments. To do this, Medicare could first calculate each hospital's risk-adjusted readmission rate based on the prior year's performance and then select a benchmark rate (e.g., the average risk-adjusted readmission rate across all hospitals). For the next year, Medicare would reduce payment only for those hospitals with readmission rates above the benchmark rate.

It would be prudent to first focus on making this payment change for a limited number of conditions. DRGs with high volume and high rates of readmission are good candidates. By focusing on a subset of conditions, Medicare and providers can gain needed experience to refine measurement techniques and assess the value of expanding the policy to a broader set of DRGs. Good candidates for the starter set include congestive heart

failure, COPD, and coronary artery bypass graft. In Table 4-2, we list those conditions as well as several others to illustrate a potential starter set.

Among the key measurement and payment issues are:

- What is the time period within which readmissions are defined? For the purposes of this discussion, we use 30-day readmission rates, but the interval could be longer (e.g., 60 days) or shorter (e.g., 15 days).
- Should all readmissions be counted in the selected time period or just the subset that are clinically determined to be potentially preventable? For the purposes of the analysis in Table 4-2, we explored identifying potentially preventable readmissions with software developed by 3M (see MedPAC 2007).⁴ Potentially preventable readmissions are those that in many cases may be prevented with proven standards of care; however, not all of them can be avoided, even if hospitals follow best practices.

- What is the benchmark against which hospitals are measured? Should it be average readmission rates across all peers, or should it reflect a higher standard, such as the readmission rate of top performers, to raise expectations?
- Should readmissions be defined to include readmissions to a hospital other than the one that had the initial admission? The Commission believes the broader definition is appropriate. Thirty percent of readmissions are to hospitals other than the one with the initial admission; failing to hold hospitals accountable for these readmissions would limit the scope of the policy significantly and continue the current perverse incentives where providers operate in isolation.
- The policy involves risk adjusting for the patient's health status and severity of illness, but should it include additional adjustments for factors such as a high proportion of nonadherent patients or the mix of services available in the geographic area that might affect the likelihood of readmission?

Allow shared accountability

The Commission recognizes that hospitals need physician cooperation in making practice changes that lead to a lower readmission rate. Therefore, the Commission believes that hospitals that would like to financially reward physicians for helping to reduce readmission rates should be permitted to do so. Sharing in the financial rewards or cost savings associated with reengineering clinical care in the hospital is called gainsharing or, preferably, shared accountability. Allowing hospitals this flexibility in aligning incentives could, for example, help them make the goal of reducing unnecessary readmissions a joint one between hospitals and physicians. As discussed in a 2005 MedPAC report to the Congress, shared-accountability arrangements should be subject to safeguards to minimize the undesirable incentives potentially associated with these arrangements. For example, physicians who participate should not be rewarded for increasing referrals, stinting on care, or reducing quality (MedPAC 2005b).

The Commission recognizes that other providers, such as skilled nursing facilities and home health providers, can also be instrumental in avoiding readmissions. The Commission continues to explore ways to encourage these providers to avoid hospital readmissions, particularly with pay-for-performance programs that have readmission rates as a quality measure (MedPAC 2007). Including

readmission rates as a pay-for-performance measure should also be considered, particularly for physicians who become a “medical home” (see Chapter 2). The recommended change in readmissions policy will create pressure for hospitals to develop relationships with high-quality post-acute care providers.

Explore virtual bundling and other broader payment changes

The Commission is interested in pursuing other, broader approaches to holding providers accountable for service use around hospitalization episodes. One approach it considered is virtual bundling. Under virtual bundling, providers would not receive a bundled payment; they would continue to receive separate payments from Medicare. However, payments to providers would be subject to the possibility of a reward or a penalty based on their relative aggregate spending for care delivered during a hospitalization episode. This change in financial incentives encourages providers to be aware of the collective impact of the actions of all providers involved in caring for a patient and to take greater responsibility for coordinating care (see text box, p. 98, for a discussion of the specific design of rewards and penalties).

Unlike a change in readmissions payment policy, virtual bundling holds providers accountable for all covered Part A and Part B services throughout the episode, rather than a single type of service. The advantage of this approach is that it does not encourage providers to inappropriately substitute one service for another. However, the Commission recognizes that virtual bundling may be complex to administer. For example, because providers have latitude in when they submit claims and each provider involved in an episode of care bills separately, it may be difficult for CMS to identify related claims in a timely way. Initially, the adjustments may not be appropriately applied, requiring later reconciliation and creating administrative complexity for providers. Moreover, a policy that requires withholding payment may create cash-flow problems for physicians, particularly those in small practices.

On balance, though, the idea of such an inclusive efficiency measure is appealing. For this reason, the Commission recommends that the Secretary explore the feasibility of virtual bundling and other approaches that may encourage greater efficiency around a hospitalization episode and report its findings to the Congress within two years.

RECOMMENDATION 4B

To encourage providers to collaborate and better coordinate care, the Congress should direct the Secretary to reduce payments to hospitals with relatively high readmission rates for select conditions and also allow shared accountability between physicians and hospitals. The Congress should also direct the Secretary to report within two years on the feasibility of broader approaches, such as virtual bundling, for encouraging efficiency around hospitalization episodes.

RATIONALE 4B

Reducing case payments when readmissions occur for hospitals with high readmission rates encourages providers to better tend to beneficiary needs during a vulnerable juncture in their care and to avoid complications during the initial stay. Research shows that specific hospital-based initiatives to improve communication with beneficiaries and their caregivers, coordinate care after discharge, and improve the quality of care during the initial admission can avert many readmissions. Allowing shared accountability, also known as gainsharing, permits hospitals to make reducing avoidable readmissions a goal of physicians as well. Other policies, such as virtual bundling, may offer promise as a broad efficiency measure but need further consideration.

IMPLICATIONS 4B

Spending

- There is a potential for savings, but the magnitude depends on the details of the policy.

Beneficiary and provider

- Coordination of beneficiaries' care could improve.
- Providers with high readmission rates would receive lower payments.

Pilot to test bundled payment

Bundled payment raises various implementation issues. It requires that Medicare create a new payment rate for a bundle of services and also allows providers discretion in how they will share the payment and what behavior they will reward. Accordingly, the Commission recommends that CMS conduct a pilot program in which providers opt to receive a bundled payment for all covered services under Part A and Part B associated with a hospitalization episode (e.g., the stay plus 30 days). The pilot should be conducted concurrent with the two steps discussed above—information disclosure and a change in payment

associated with a high level of readmissions. The pilot should begin applying payment changes to only a selected set of medical conditions.

The objective of the demonstration should be to determine whether bundled payment across an episode of care can improve coordination of care, reduce the incentive for providers to furnish services of low value, improve providers' efficiency, and reduce Medicare spending while not otherwise adversely affecting the quality of care. Efficient providers should share in the savings from aligned incentives as well.

Extending the window of care to be paid for under the bundled payment beyond the stay reflects the Commission's commitment to improving incentives to coordinate care across sites, particularly at the time of discharge. Given both the wide variation and the magnitude of spending in the postdischarge period, significant efficiencies should be gained with the incentives included in the bundled-payment approach.

The Commission favors voluntary participation in the pilot because it recognizes that the health care delivery system is neither sufficiently nor uniformly organized in every community. Bundling payment across services in a hospitalization episode requires that Medicare pay a single provider entity (e.g., a hospital and its affiliated physicians), which would be responsible for paying individual providers for the care delivered during the episode. It is not clear whether in all communities providers would be able to agree to accept the bundled payment or would have the infrastructure to manage care and be accordingly rewarded through the bundled-payment provisions.

In choosing to recommend a pilot program as the vehicle to test bundled payment, the Commission seeks to balance the urgent need for a realignment of payment incentives with a healthy respect for the possibility that a well-intentioned policy change can result in unintended consequences. A pilot is more aggressive than a demonstration program in that it can be expanded nationally without the need for further legislation if it proves that the payment policy meets the stated objectives. Eliminating potential disruption and barriers to the expansion of bundled payment would be important in encouraging providers to participate in the pilot and invest in changing the culture, practice patterns, and infrastructure. If providers were concerned that the payment change would last only three years before being suspended pending legislative authorization, they might

How could virtual bundling be implemented?

To measure resource use for a hospitalization episode, policymakers need to select an episode duration that encompasses the time during the hospital stay and some time postdischarge. Next, CMS could measure resource use, which for our purposes is considered to be aggregate Medicare payments for all services across an episode covered by Part A and Part B and adjusted for the risk of the patient. Each episode of care would begin with a patient's admission to the hospital. For comparison purposes, the Medicare payments would need to be standardized so they do not reflect payment adjustments for wages and input prices or for special missions, such as medical education or caring for a high proportion of low-income beneficiaries.

CMS would then compare national hospital resource use performance over a previous year and identify relatively high- and low-spending hospital episode levels—perhaps benchmarked at the 75th and 25th percentiles of hospital performance, respectively. Performance relative to the high benchmark would determine eligibility for the penalty. Setting the benchmark significantly above average spending leaves some room for imprecision in risk adjustment, targeting only hospitals and physicians with resource use well above most of their peers.

At the beginning of the following year (and each year thereafter), providers would be informed of the spending benchmarks in advance. All inpatient hospital and inpatient physician services for the selected conditions would be subject to a withhold—that is, CMS would hold some portion of the payment amount in reserve.

Hospitals with relatively high episode spending on average, as determined either at the end of the year or semiannually, would not get their withhold back and thus would receive lower payments than under current policy. The withhold on services physicians provided in these hospitals would also not be returned. Hospitals and physicians would have withholds returned if, on average, episode spending is below the benchmark.

Hospitals with relatively low episode spending on average would receive their withhold and possibly bonus payments. The same would apply to the physicians billing for services in these hospitals. Applying a quality test to be eligible for bonus payments would be important to temper the financial incentive for providers to stint on needed care.

Under this approach to virtual bundling, whether a physician's payment for services provided in the hospital is penalized or rewarded depends on average episode spending across all the episodes assigned to the hospital. By calculating a hospital's average resource use per episode, CMS would give physicians and hospitals a strong incentive to implement administrative and treatment procedures that improve the performance of everyone practicing at that hospital. Ultimately, holding providers jointly accountable in this way should foster "systemness."

This concept of holding providers jointly accountable could be applied even more broadly than is outlined above. Ideally, under virtual bundling, the hospital and inpatient physicians would be held accountable—subject to penalties and rewards—as well as providers seeing the patient on an outpatient basis or in a post-acute setting within the 30 days after discharge. This would provide symmetric incentives for all involved in the episode to work together and be mindful of their collective performance. A concern is that the policy might adjust payments for providers who had no ability to influence the course of the episode (e.g., an allergist who sees a patient on the 28th day after discharge for a condition clinically unrelated to the one that initiated the episode). Once that issue is resolved, perhaps the incentives under virtual bundling should be expanded. Other policies, including skilled nursing facility pay for performance and physician resource use measurement—two initiatives the Commission previously recommended—should also be pursued to balance incentives (MedPAC 2007). ■

not be inclined to make the types of investments that are likely to be so critical to meeting program objectives and achieving financial success under this new payment method.

A pilot is less aggressive than fully implementing a national voluntary bundled payment policy. The Commission considered a national voluntary bundled payment approach but found several aspects of implementation particularly thorny, rendering the approach too risky. The policy challenges discussed below point to the rationale for why the Commission opted for a pilot rather than a national program and the spectrum of issues the pilot must address.

RECOMMENDATION 4C

The Congress should require the Secretary to create a voluntary pilot program to test the feasibility of actual bundled payment for services around hospitalization episodes for select conditions. The pilot must have clear and explicit thresholds for determining whether it can be expanded into the full Medicare program or should be discontinued.

RATIONALE 4C

A pilot would guide policy on a variety of design questions and allow some hospitals and their affiliated physicians to begin receiving bundled payments. It allows CMS to explore how savings could be shared between Medicare and providers and would help minimize the possibility of unintended consequences.

IMPLICATIONS 4C

Spending

- Spending implications are indeterminate, but the intent of the policy is to produce Medicare savings or, at a minimum, be budget neutral.

Beneficiary and provider

- Coordination of beneficiaries' care should improve.
- The pilot should align provider incentives, allowing them to share in savings resulting from greater efficiency.

Achieving Medicare savings

The Commission intends for bundled payments to achieve Medicare savings but has identified a number of challenges that must be addressed. First, making bundled payment voluntary has implications for how payment can

be set to achieve savings, which raises concern about the administrative ease of the policy. Considering the payment alternatives can help to illustrate the challenge. For example, payment amounts for each bundle can be set at a national or regional average, similar to the way DRG rates were initially set. But under a voluntary option, if bundled payment rates were set at such an average, only those who would benefit (those with below-average spending across the episode) would likely participate. This dynamic would result in higher rather than lower Medicare spending.

An alternative way to set payment levels that is more likely to achieve savings is to calculate each provider's baseline spending amount and negotiate a discount from that rate. This approach was used in the heart bypass demonstration in the 1990s. However, CMS found that making this hospital-specific baseline calculation was administratively consuming. Accordingly, using this payment method, which may be necessary to achieve savings, requires that CMS start bundled payment in the context of a pilot, where it can limit the number of participants and select providers in different markets and with different integration models. Confining the policy approach in this way would allow CMS to manageably experiment with how best to streamline the calculation to minimize the administrative burden while ensuring it is fair and transparent to providers.

A related issue for CMS to address is how to determine the level of Medicare savings associated with aligned incentives. In the heart bypass demonstration, the base bundled payment rate was subject to a discount, the specific percentage of which varied by site. For the purposes of the pilot, savings could be achieved through a similar discount from the base rate, through lower future updates for inflation of the base rate, or through a combination of the two. The approach to securing savings could vary depending on the historical spending level of the providers. For example, those with exceptionally high costs could be subject to deeper discounts than other providers with relatively low episode costs. Another design option is to gradually increase provider-specific savings targets over time—so that, for example, a high-cost facility would face steady pressure to continually invest in ways to control its costs.

A second challenge to achieving savings is the potential for bundled payment to create an incentive for providers to produce more admissions. As discussed earlier, providers may recognize that increasing the number of admissions can create a win-win situation for the hospital

and physicians. In the short term, one approach that could dampen incentives to increase volume would be to regulate the financial arrangements between hospitals and physicians. For example, fair market value limits could be applied to physician payment rates. Another possibility would be to measure admission rates and adjust the bundled payment based on the providers' admission rate relative to a national average. Numerous technical issues would need to be resolved first to ensure fair measurement.

Addressing payment complexities

Whether the bundled payment base rate is set on a hospital-specific basis or on some type of average, other payment issues would need to be addressed. Among them are the following:

- How can CMS best adjust for a patient's relative risk (health status) over the course of a hospitalization episode? While risk adjustment for care during the stay has been well tested, Medicare has less experience in adjusting for differences in postdischarge costs—differences that can stem from variation in patient characteristics, their home environment, and the availability and mix of physicians and post-acute providers in the area.
- How can CMS identify outlier cases and make additional payments to cover the costs associated with exceptionally costly cases? Conversely, how can CMS make adjustments for exceptionally short hospitalization episodes, including those in which a patient dies during the hospitalization?
- How can CMS minimize the risk that hospitals receiving indirect medical education and disproportionate share funds could use them to create an unlevel playing field in the competition for physicians? Indirect medical education and disproportionate share funds could be diverted to attract and reward high-volume physicians caring for high-margin cases.
- How should CMS adjust its regular prospective payment system rates for services like home health care and hospital stays when a portion of the care was delivered in the bundled payment window? For example, home health services are usually paid in 60-day episodes. If Medicare paid for 30 days of care in the hospital bundle, it would need to recalibrate how it pays for home health beyond the end of the hospitalization episode.

- How should beneficiary cost sharing be addressed? With bundling, in which payment is unchanged by the number of visits, policymakers would need to reexamine how to calculate beneficiary coinsurance for visits to physicians and outpatient providers.⁵ The interaction with supplemental coverage should also be considered, given that most beneficiaries have supplemental coverage for these cost-sharing requirements.
- Should prescription drug spending, covered under Part D of Medicare, ultimately also be included in the bundled payment?

Quality incentives

To address concerns about stinting, providers should be held accountable for quality. While the Commission recognizes that current quality measures are imperfect, CMS has gained experience measuring hospital quality and is continually exploring new measures and refinements to existing measures. In particular, the Commission encourages CMS to develop new measures that will promote coordination of care across settings, patient centeredness, longitudinal assessment, and shared provider accountability in addition to clinical quality.

In considering how providers receiving a bundled payment should be held accountable for quality, policymakers will need to consider the nature of the penalty for subpar levels of quality. For example, would Medicare publicly report the provider's performance, impose a payment penalty, or exclude the provider from the program?

The ability and willingness of providers to participate

Some providers might prefer receiving a bundled payment rather than the separate payments associated with the current payment system (and virtual bundling), but others may not. As discussed earlier, some—particularly those with a history of acrimony and distrust between hospitals and physicians—would not be able or willing to come together to accept and share the bundled payment, at least not initially. Providers might find that they were better off in the current or virtual bundling system. Determining the relative advantage of each system would depend not only on the payment rate a provider would receive but also on the provider's assessment of the impact of the bundled payment on costs.

Although bundling creates incentives for providers to reduce costs both during the hospitalization and afterward,

it also entails new administrative costs as well as some insurance risk. With respect to administrative costs, providers would need to negotiate contracts specifying how they would plan to share the bundle. This process could be extensive, as hospitals would need to contract with a wide range of physicians and post-acute care providers. The entity receiving the payment would then need to develop an administrative infrastructure to receive and pay bills—not only for its usual set of providers but also for others who might see the patient during the episode. This would likely be an entirely new administrative function for a hospital and could represent a significant financial investment.

Insurance risk refers to the ability of providers to manage the costs of care during the hospitalization episode so that they do not exceed payments. Part of the assessment providers make to manage this risk would concern whether they were responsible for costs clinically related to the initial admission or all costs. Some of the costs within the 30 days after discharge could be unrelated to the clinical circumstances of admission that initiated the hospitalization episode. Those costs might be more difficult to anticipate and manage and may dissuade some from participating. If this issue is perceived to be a significant barrier, some exceptions could be considered (e.g., providers would not be held accountable for costs associated with automobile accidents or other traumas

after discharge). Geisinger Health System has pursued this type of approach in creating bundled payments for private sector payers.

Conclusion

The Commission is under no illusion that the path of policy change outlined here is easy. Despite our best efforts to anticipate them, unforeseen consequences are likely to be encountered and policies would need to be adjusted. Nevertheless, the Commission believes the status quo is unacceptable. The current payment system is fueling many of the worst aspects of our health care system, leaving beneficiaries' care uncoordinated and increasing health care costs to an extent that strains beneficiaries' ability to pay Medicare premiums, the nation's ability to finance Medicare, and the ability of a large segment of the non-Medicare population to afford insurance.

The Commission has chosen a path that balances the need for change with an understanding that an industry as complex as health care cannot change quickly and that mistakes can carry serious, life-threatening consequences. Nevertheless, the Commission is motivated by a sense of urgency. The price we are paying is too great. ■

Endnotes

- 1 As discussed in Chapter 3, hospitals and physicians are finding ways to align incentives in a way that might induce physicians to help hospitals contain costs. Unfortunately, these alignment strategies appear to be aimed at increasing the volume of services performed rather than containing costs.
- 2 Many readmissions defined as potentially preventable would still occur even if best practices were followed. We cannot clearly identify with claims data what proportion of potentially preventable readmissions actually could be prevented if best practices were followed. Potentially preventable defines the subset of cases in which some reduction in readmissions is possible and savings could be achieved.
- 3 This increase in volume was not documented when the inpatient prospective payment system (case payments) for hospital stays was implemented. Because physicians, rather than hospitals, admit patients and the inpatient prospective payment system provided no incentive for them to admit more, the lack of volume growth may not be surprising. However, the dynamic could be different under a bundled payment policy because it aligns physicians' and hospitals' incentives.
- 4 3M's approach identifies readmissions that likely could have been prevented, such as readmissions for COPD after cardiac surgery, some of which may be avoided if COPD medications are appropriately adjusted at discharge. In determining potentially preventable readmissions, 3M excluded certain readmissions—including those related to trauma, cancer, and burns—and then combed through all permutations of diagnoses for an initial stay and for a readmission and evaluated the likelihood that a given readmission diagnosis was related to the first admission and, therefore, was potentially preventable.
- 5 Skilled nursing facility coinsurance does not begin until the 20th day of the stay, so it is not affected by a more modest bundling approach. Other services beneficiaries may use during the hospitalization episode are not currently subject to cost sharing, including home health, laboratory services, durable medical equipment, and readmissions

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Payment Reform Options: Episode Payment Is A Good Place To Start

Before provider payments are reduced, our payment system must be reformed to encourage the more efficient delivery of care.

by **Robert E. Mechanic and Stuart H. Altman**

ABSTRACT: New strategies to control U.S. health spending growth are urgently needed. Although provider payment cuts are likely, cutting fee-for-service (FFS) payments will hurt quality and access. A more sensible approach would be to restructure the delivery system into organized networks of providers delivering reliable, evidence-based care. But restructuring will not occur without payment policy reform. Four policy options are commonly cited: recalibrating FFS, instituting pay-for-performance, creating episode-based payments, and adopting global payments. We argue that episode payments are the most immediately viable approach, and we recommend that payment reforms precede any payment reductions so that new delivery models can gain traction. [*Health Affairs* 28, no. 2 (2009): w262–w271 (published online 27 January 2009; 10.1377/hlthaff.28.2.w262)]

THERE IS STRONG CONSENSUS THAT THE U.S. health care system fails to provide either the quality or the value that it should, and that substantial restructuring is urgently needed.¹ Despite deep dysfunction and numerous public and private reform efforts, the system has been astoundingly resistant to change.² But health spending has reached a level where continued annual increases two to three percentage points faster than the nation's economic growth will increasingly limit the ability of employers and public programs to offer health coverage. Unless the forty-year historical spending trend miraculously abates, vigorous expansion of public and private cost control initiatives is inevitable.

Of the strategies capable of immediately slowing growth in health spending, reducing benefits and limiting services run counter to the urgent need to improve health care access. This leaves provider payment cuts as the “least bad” option for achieving short-term savings. However, in the fragmented U.S. delivery system, cutting fee-for-service (FFS) payments over any sustained time period will hurt

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both quality and access. A more sensible approach would be to develop a long-term agenda to restructure the delivery system into organized networks of providers capable of delivering reliable, evidence-based care within realistic budgets.

Expanding organized networks will not, by itself, reverse the health care spending trend. But in a future of constrained spending growth, organized networks will be better able to optimize the mix of patient services and preserve quality compared with the current system of unconnected providers, particularly if payers realign financial incentives. Physicians and hospitals now have few incentives to establish or join organized networks. We believe that payment reform is a necessary precondition for the types of delivery system changes needed to bring about a more efficient and effective health care system.

Four payment reform options have been widely discussed: recalibrating FFS; instituting pay-for-performance (P4P); creating episode payments that combine hospital and physician reimbursement; and adopting global payment approaches such as capitation. We briefly summarize each below, according to four criteria: (1) their potential for reducing unnecessary utilization; (2) their potential for encouraging high-quality care; (3) the support they provide for provider integration; and (4) operational feasibility. We also discuss blended approaches, and we conclude by discussing implementation issues.

Option 1: Recalibrate FFS Payments

FFS reimbursement pays for care regardless of whether services are appropriate or of high quality, and it supports wide geographic variations in health care use and spending.³ It penalizes organizations that try to reduce unnecessary services or shift patients into low-cost settings with reduced revenues and profits, creating a sizable barrier to delivery reform.⁴

FFS also encourages overuse of many costly specialty services while short-changing important but less lucrative areas such as primary care. Well-documented inaccuracies in Medicare hospital and physician payment have made certain services highly profitable and others money-losers.⁵ The most profitable have been those with rapidly advancing technology, where new equipment has increased physician productivity and reduced costs.⁶ Because prices have remained at their initial levels while costs have declined, use of cardiovascular procedures, orthopedics, and advanced imaging have increased rapidly.

Service-line profitability influences health care investment decisions. Recalibrating Medicare FFS rates to establish more-neutral financial incentives would encourage investments that are better aligned with communities' medical needs. However, in a recalibrated FFS system, providers will still be paid more for doing more rather than for achieving better outcomes. The political challenges of recalibration are also great, as powerful interests will react negatively to potential income reductions.

Option 2: Pay-For-Performance

The concept of P4P has strong intuitive appeal. By 2006, 258 P4P programs were being operated by 140 public and private payers.⁷ However, few programs have been formally evaluated, and those that have show mixed results.⁸ One early analysis concluded that physician P4P may produce little gain in quality for the money spent, and it may largely reward physicians with higher baseline performance.⁹ Many design issues remain unresolved, including whether programs should target individual physicians or groups; the proportion of physician remuneration needed to change behavior; and whether incentives should reward the level of performance or the rate of improvement.¹⁰

The most important factor limiting P4P's potential, however, is the current lack of meaningful, actionable performance measures. Most programs rely on widely available process measures such as the Healthcare Effectiveness Data and Information Set (HEDIS).¹¹ Clinical outcome measures such as death and complication rates associated with surgery are more meaningful but are technically problematic.¹² Furthermore, most outcome measures focus on very small subsets of clinical practice. The deficit in performance measurement is a fundamental concern for all payment models discussed in this paper. Broader measures that target multiple dimensions of care and foster shared accountability among caregivers are needed.¹³

In contrast to the modest impact of most P4P programs, Medicare's new policy of withholding hospital payments for services caused by eight secondary conditions it defines as "preventable complications" has important implications for quality improvement. Although financial savings from this effort will be small, it could have a large impact on hospital behavior if seen as an initial phase of future Medicare policy changes that penalize poor performance.¹⁴

P4P is an important development, but it must evolve beyond its current form to be effective. P4P addresses a major conceptual flaw in FFS by rewarding quality of care. However, P4P programs are unlikely to affect spending trends as long as their primary emphasis is rewarding providers for delivering "underused" services rather than for judicious use of potentially "overused" treatments. Nor is P4P likely to drive substantial provider integration, although programs that reward the adoption of information technology (IT) and care management processes may be beneficial on the margin. In spite of these issues, P4P can be a valuable component of either a modified FFS system or a more global model. However, P4P combined with FFS is not our preferred alternative.

Option 3: Bundled Payment For Episodes Of Care

Options 1 and 2 contain few incentives for cooperation among hospitals, physicians, and other care providers. As a result, there is growing interest in bundled payments that include all services associated with an episode of care, such as a hospital admission. This would go beyond hospital diagnosis-related groups

“Payers will encounter less resistance if they develop episode payments within a quality improvement framework.”

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(DRGs) by bundling hospital, physician, and other clinical services into a single rate. It would also increase accountability for outcomes by extending the episode to a period of perhaps thirty days beyond the hospital discharge. Payers would develop rates based on the resources needed to provide care that is consistent with established clinical guidelines.

Desirable outcomes from episode-based payments include reducing unnecessary physician and ancillary services, compensating physicians for efficient resource use, and reducing complications and readmissions.¹⁵ Policymakers are concerned, however, about the potential for hospitals to increase admissions, seek to profit by limiting beneficial services, or avoid patients with complicated conditions.

Interest in episode payments has been heightened by a recent Geisinger Health System (GHS) initiative, which the *New York Times* has characterized as “surgery with a warranty.”¹⁶ Geisinger’s ProvenCare coronary artery bypass surgery (CABG) program promises to follow forty specific clinical processes for all patients undergoing elective procedures. For each case, surgeons must explicitly ensure that surgery is appropriate, document a shared decision-making process with the patient, and initiate postdischarge follow-up to ensure compliance with medication and rehabilitation recommendations.¹⁷

The key aspect of ProvenCare is a flat payment for surgery and all related care for ninety days after discharge. The flat rate assumes that GHS will reduce its historical complication rate by half. An evaluation during the first year found reductions in most adverse events in the ProvenCare patient group, including a 10 percent drop in readmissions, shorter average length-of-stay, and reduced hospital charges.¹⁸ More recent data presented by Geisinger executives suggest a 44 percent readmission reduction over eighteen months.¹⁹ Based on these results, GHS has expanded ProvenCare to other areas including angioplasty, cataract surgery, and hip replacement.

ProvenCare’s success is due in large part to Geisinger’s unique structure as a physician-driven, integrated delivery network with a systemwide electronic health record (EHR) and dominant market share. This structure addresses a key challenge for health care organizations: how to equitably distribute episode payments across physicians, hospitals, and other providers. Some of the nation’s 125 integrated academic medical centers and 1,000 physician-hospital organizations (PHOs) will be able to adapt quickly to episode payments, while others will struggle. Payers will encounter less resistance if they develop episode payments within a quality improvement framework and with substantial physician input. Groups like Prometheus are now developing “evidence-informed” case rates and defining services that should and should not be included in episode payments.²⁰

Option 4: Global Payment

The most common form of global payment is capitation: an all-inclusive payment per enrollee for a defined scope of services, regardless of how much care is actually provided. Studies comparing physicians paid under FFS and capitation show that capitation results in lower rates of elective surgery, patient consultations, diagnostic services, and specialist and hospital referrals.²¹ A principal concern is that capitation creates financial incentives for physicians to withhold care. This criticism helped fuel the managed care backlash in the 1990s, and it must be addressed if payers are to successfully resurrect capitation.

One model that tries to address these concerns is the Blue Cross Blue Shield of Massachusetts (BCBSMA) alternative quality contract (AQC), which combines a health status-adjusted global payment with performance incentives for meeting quality and safety benchmarks.²² BCBSMA envisions the AQC as a five-year arrangement in which base payments start at current spending levels and grow by inflation. Contracted delivery systems can improve margins through quality bonuses of up to 10 percent and by reducing spending growth below the level of inflation. As of this writing, BCBSMA has signed preliminary agreements with several multispecialty group practices.

Relative to other options, global payment has the greatest potential for encouraging shifts in health care resource use from low-value to high-value services. To counter the possibility of undertreatment, global payment should be implemented in a context of ongoing performance measurement and reporting. Expanding global payment will also encourage providers to become more organized. As FFS rates are restricted, physicians' income prospects may well look better under global payment arrangements. There are obviously important challenges for global payment, including developing credible risk-adjustment mechanisms and finding provider systems willing to accept global risk.

Blended Payment Models

Although the foregoing payment reform options are usually discussed as if they were distinct models, future payment innovations will likely incorporate multiple approaches. Blended models are widely used by physician groups in California that reimburse specialists and primary care physicians using blends of capitation and FFS.²³ Payers can design blended systems to achieve specific policy objectives—for example, combining capitation incentives for spending within budget targets with FFS for promoting preventive services such as mammography, and bonus payments for encouraging providers to meet quality and patient satisfaction targets. Importantly, blended models can be designed to limit physicians' financial risk for aspects of care beyond their control.

The principal goals of payment reform articulated in this paper are (1) controlling unnecessary utilization, (2) encouraging high quality, and (3) supporting

provider integration (Exhibit 1). FFS reimbursement performs poorly on all of these goals, although a recalibrated FFS system improves on the current model. P4P encourages higher quality for aspects of performance that can be measured but falls short on the other two goals. Episode payments have potential for positively influencing utilization, quality, and provider integration, although the utilization impact is primarily within the episode itself. Global payment has the greatest potential for controlling utilization and encouraging provider integration, but like episode payments, it requires a strong performance monitoring framework and possibly financial incentives to ensure quality. Unfortunately, global payment is also the most challenging to implement on a large scale.

Implementing Payment Reform

Payment reform cannot succeed without Medicare as a major player, because Medicare is the only payer with sufficient market power to drive meaningful delivery system reforms. The Centers for Medicare and Medicaid Services (CMS) strategic plan calls for “achieving a transformed and modernized health care system.”²⁴ However, one cannot underestimate the difficulty of this undertaking—administratively, technically, and politically. Unlike private payers, traditional Medicare has not yet been permitted to establish limited provider networks based on quality and efficiency, or to vary benefit designs to drive patients to efficient providers. Medicare’s “big stick” is payment policy. Here we focus on Medicare’s role in payment reform, in the belief that private payers will quickly implement successful Medicare payment policy changes.

There is much variability in the readiness of U.S. physicians and hospitals to adapt to major payment system reforms. Although multispecialty groups such as Kaiser Permanente already operate under global payment, most U.S. physicians are in solo practice or small groups, and are ill prepared to manage care under greatly modified financial arrangements. Reforms must be phased in so that pro-

EXHIBIT 1 Evaluation Of Payment Reform Options Based On Key Objectives

Reform option	Objective			
	Controlling unnecessary utilization	Encouraging high quality	Promoting provider integration	Operational feasibility
Recalibrated FFS		*		**
Pay-for-performance		**	*	**
Episode payment	**	**	**	**
Global payment	***	**	***	*

SOURCE: Authors’ analysis.

NOTES: FFS is fee-for-service. Three stars denote high potential; two stars, medium potential; one star, low potential; and no stars, zero or negative potential.

“In the immediate future, global payment models will remain primarily in the private sector.”

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viders have a reasonable opportunity to adapt by implementing new models of virtual integration that build on IT and shared financial incentives. Stephen Shortell and Lawrence Casalino describe five common organizational models that could evolve into “accountable care systems” under a modified financial structure.²⁵

Although we believe that some form of global payment combined with performance incentives is the best theoretical model, the CMS will have to adopt a more iterative and flexible approach, which we believe can draw on all four payment reform options described in this paper. The CMS could begin by recalibrating payment levels and developing a more dynamic Medicare rate-setting process, including more-rigorous mechanisms for reviewing and updating physician fees, and recognizing changes in the cost of new technologies. For example, the CMS could develop multiyear schedules where payments for new products are automatically adjusted to reflect productivity gains observed in similar technologies unless presented with evidence to the contrary.

Developing more effective P4P models is also a worthy objective that Congress should accelerate by investing in a national center for performance measurement.²⁶ If P4P becomes a central component of Medicare payment policy, we recommend an explicit focus on trying to measure overutilization and developing incentives to reduce unnecessary care. We recognize that overutilization is very difficult to measure precisely; therefore, the initial focus could be expensive services known to have limited efficacy. The Medicare Payment Advisory Commission (MedPAC) or a national advisory group should be charged with identifying potentially overused services and developing a research agenda to evaluate how to manage these services more effectively. The CMS should also experiment with value-based pricing models that adjust payments based on clinical outcomes. The United Kingdom has used this approach to pay for certain biologic therapies.²⁷

In our view, the most promising near-term opportunity for the CMS is to develop an episode-based payment system for Medicare. Doing so would create an environment favorable to advancing episode payments in the private sector and would strengthen incentives for providers to work together toward improving their collective efficiency.²⁸ Inpatient episode payments would address one of Medicare’s most visible quality problems: an 18 percent hospital readmission rate within thirty days of discharge. Reducing or eliminating payments for preventable readmissions could save Medicare up to \$12 billion annually.²⁹ Both the CMS and private payers could facilitate adoption by working with groups like Geisinger and Mayo Clinic to establish standard clinical protocols for episode payments. They could also offer enhanced payments to “ProvenCare certified” delivery systems.

In the immediate future, global payment models will remain primarily in the private sector. The CMS should encourage these private models and, where appropriate, develop partnerships with health insurers to support and evaluate them. For example, the CMS could establish a voluntary, local Medicare payment option that reinforces BCBSMA's alternative quality contract. The CMS should also expand its use of programs such as the Physician Group Practice demonstration, where participating groups share in savings below a projected budget.³⁰

In addition to payment policy changes, policymakers need to consider fundamentally restructuring Medicare to be a more effective purchaser. One option would be establishing an independent Medicare board that is separate from both the CMS and Congress. This would be analogous to proposals for a Federal Health Board (FHB) that would make decisions about benefits, coverage, and payment policy based on sound empirical research in the context of national health reform.³¹ Among its potential benefits would be insulating Medicare from congressional micromanagement.

Finally, the federal government should develop a detailed payment reform agenda that sends clear signals to the market. Although provider reluctance is inevitable, the most effective inducement will come from restricting growth in FFS rates, while offering alternative models with greater potential for provider income. Limits on spending growth will require reductions in payment rates, but we recommend that new payment models be implemented first, to allow payment reforms time to gain traction. If payment reform is viewed simply as a way to cut spending, providers will resist as they did during the 1990s. Instead, if the new payment structure allows providers to earn more as part of organized delivery systems than as independent practitioners, the interaction between payment policy and delivery reform could become a virtuous cycle.

Concluding Thoughts

Although payers with market power can reduce spending by cutting FFS payments, doing so in a fragmented system will create serious quality problems. We believe that organized systems are more capable of adapting to the inevitable moderation in U.S. health spending growth while maintaining quality, but that delivery system restructuring will not happen without payment reform. We strongly recommend that payment reforms precede any significant reduction in payment levels. Payment reform must also be accompanied by new investments in quality measurement, comparative and cost-effectiveness research, IT, and techniques for managing complex chronic illnesses. Without such investments, we are not optimistic that the U.S. health system will be able to moderate spending growth while moving toward a delivery system that generates superior value.

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